

REMARKS/ARGUMENTS

The following remarks are in reply to the non-final Office action of 01/05/2007. In light of this reply, reconsideration and further examination of this application are respectfully requested.

Thirty-nine claims were pending in this application. In this reply, no claims were amended, added or canceled. Accordingly, 39 claims remain pending in this application for reconsideration and further examination.

In section 1 of the Office action, the Examiner allowed claims 11 – 20, for which Applicant expresses appreciation.

In section 2, the Examiner objected to claims 4, 5, 10, 23 and 24 as being dependent upon a rejected base claim, but indicated they would be allowable if appropriately amended, for which the Applicant expresses appreciation. However, in light of the remarks below, it is respectfully submitted that all pending claims are in an allowable form.

In section 4, the Examiner rejected claims 1-3, 6-9, 21, 22 and 25-39 under 35 U.S.C. 103(a) as being unpatentable over Kishimoto et al. (6,266,122) in view of Kishimoto et al. (6,281,960), stating, in pertinent part,

Regarding Claims 1, 7 and 32, Kishimoto et al. ('960) disclose... a transparent electrode/pixel electrode/color filter 8B, formed on the flat surface of the insulating substrate, *black matrix BM and formed on the transparent electrode*. Kishimoto et al. ('960) fail to disclose the required black matrix and then the protrusion. However, Kishimoto et al. ('122) disclose ... in Fig. 8A, protrusion consists of a bottom base layer 76 followed with columnar layer 90. ...

Regarding Claim 21, Fig. 11 of ('122) has light blocking layer 510. ...

Regarding Claim 25, if the configuration of 8A of ('122) [were to be] applied to [the] BM configuration of ('960) then one would have a base layer 76 and top layer 90 of both black matrix material." (Emphasis added.)

In light of the remarks that follow, the above rejection is respectfully traversed.

Independent claims 1, 7, 21, 25 and 32 respectively include the following distinguishing limitations (emphasis added):

Claim 1: "... a transparent electrode formed on the flat surface of the insulating substrate; and,
a black matrix formed on the transparent electrode."

f Claim 7: "... forming a transparent electrode on a flat surface of a substrate; and,
forming a black matrix layer on the transparent electrode."

"Claim 21: "... a transparent electrode formed on the flat surface of the first insulating substrate; and,

a light-blocking layer formed on said transparent electrode and made of metal."

*"Claim 25: "... a black matrix formed on the first substrate and surrounding a pixel region; and,
a protrusion formed on the color filter within a pixel region."*

*Claim 32: "... defining portions of a substrate corresponding to a pixel region and a protrusion region arranged within the pixel region; and,
etching the black matrix layer to form a protrusion on the protrusion region."*

Contrary to the Examiner's assertions above, Fig. 4 of the Kishimoto '960 reference, teaches a plurality of "color filters R,G,B" formed either individually or in opaque stacks on a substrate 2, a "black matrix BM" formed on either the substrate or on the stacked color filters, an "overcoat layer 72" formed over the color filters and the BM, and transparent electrodes 74 formed on the overcoat layer 72. ('960, col. 9, lines 41-46, emphasis added.)

Thus, Kishimoto '960 fails to teach or suggest the limitations of independent claims 1, 7 and 21 above of "a transparent electrode ... on the flat surface of the substrate" and "a black matrix/light blocking matrix ... on the transparent electrode." Further, the Kishimoto '122 reference teaches an "overcoat layer OC" formed on the light-blocking layer and a "transparent electrode" formed on the overcoat layer. Thus, neither the Kishimoto '960 nor the Kishimoto '122, whether taken individually or in combination, teaches or suggests the above limitations of independent claims 1, 7 and 21, and accordingly, it is respectfully submitted that these claims, as well as those respectively dependent from them, are allowable over the two Kishimoto references.

As regards independent claims 25 and 32, it is noted that, while Kishimoto '960 arguably teaches "a black matrix BM surrounding a pixel region," it does not teach or suggest the further limitation of "a protrusion formed ... within a pixel region" of claim 25, or the limitations of "a protrusion region arranged within the pixel region" and "a protrusion on the protrusion region" of claim 32.

Further, a review of Kishimoto '122 discloses that it is related to a "plasma-addressed liquid crystal display device" that does not include a "black matrix BM" of any kind, but instead, a plurality of "polymer walls 76" having "tapering portion on their sides" and made of "a transparent resin" that "substantially surround the liquid crystal regions 80a." ('122, col. 11, lines 6-17; col. 12, lines 9-22, emphasis added.) And, while "pillar-like protrusions 90 are formed on the polymer walls 76" (*Id.*, col. 12, lines 23-23), these are not used, as in the present invention to selectively align the liquid crystal material, but instead, to "define a thickness (i.e., a cell gap) of the liquid crystal layer 30," i.e., as spacers. (*Id.*, lines 24-27.) More specifically, like Kishimoto

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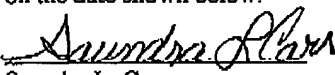
Att. Docket No. AB-1760 US
(Ref. No. OPP990852 US)

'960 above, Kishimoto '122 does not teach or suggest the limitation of "a protrusion formed ... within a pixel region" of claim 25, or the limitations of "a protrusion region arranged within the pixel region" and "a protrusion on the protrusion region" of claim 32.

Thus, neither Kishimoto '960 nor Kishimoto '122, whether taken singly or in combination, teaches or suggests the above respective limitations of independent claims 25 and 32, and accordingly, it is respectfully submitted that these claims, as well as the claims respectively dependent from them, are allowable over these two references.

In light of the foregoing reply, it is respectfully submitted that claims 1 – 39 are allowable over the art of record. Applicant therefore respectfully requests that a timely Notice of Allowance be issued in this case.

If there are any questions regarding this Reply, the Examiner is invited to contact the undersigned at the number indicated below.

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	Apr. 5, 2007
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Respectfully submitted,



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